

PHARMACARE PROGRAM REVIEW

Pharmacare Advisory Committee

March 1991

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Summary of Recommendations

Prescribing Patterns

Pharmacare should work with the College of Physicians and Surgeons, the College of Pharmacists and the BCMA to develop prescribing guides for physicians in a convenient format in order to provide unbiased information on the effectiveness and cost of alternative drug therapies. The Pharmacare Advisory Committee (the Committee) would be willing to spearhead this initiative.

Drug Use Review

The Committee recommends continuation of the DUR program. The Pharmacare Advisory Committee will take an active role in suggesting topics for review and ensuring the results of reviews are circulated widely to the medical and pharmaceutical professions.

The Committee recognizes the educational value of the Pharmacare database. Pharmacare should continue to provide reasonable access to this data for genuine research projects.

Formularies

The Committee supports Pharmacare's decision to use the Product Incentive Program to encourage further cost-effective product selection. The Committee does not recommend introduction of a provincial formulary. However, prescribing guides for a few high volume/high cost drugs could indicate generic equivalents.

Control of Drugs Subject to Misuse

The Committee recommends continuation of the Triplicate Prescription Program and encourages further efforts to contain the misuse of prescription drugs in the province.

Increasing Awareness of Drug Prices

The current Plan A copayment should be replaced with a copayment linked to the ingredient cost of the prescription.

Consideration should be given to a maximum copayment fee that could be charged on any prescription. A ceiling on the total charges a person would pay in a year should also be retained.

Reducing Waste (Trial Prescriptions)

The Committee supports the trial prescription approach as a means of limiting program costs. It endorses Pharmacare's decision to conduct another pilot study with a view to full implementation on a province-wide basis.

Introducing Ability-to-Pay into the Program

Given the mandate of the Program is to assist persons where financial circumstances would impede access to effective drug therapy, the design of the plans should be modified to ensure a stronger linkage between eligibility and ability-to-pay. In making this change, coverage for the working poor should be improved.

Limiting Products Covered by the Program

Coverage of the program should be restricted primarily to prescription drugs. All new drugs should be carefully reviewed before being included in the list of eligible drugs.

Physicians should be made more aware of the "Special Authority" provision of the Program.

Special Benefits for Diabetics

The Committee should, in conjunction with the appropriate committee of the BCMA, review in more detail the requirement that a valid training certificate be a condition of eligibility for coverage of blood glucose testing strips.

Special Support for Persons in Residential Care Facilities

Pharmacare should retain special coverage for long term care residents through Plan B.

Pharmacare should continue to cover a wider range of drugs and supplies in Plan B than in the other Plans. Coverage should be expanded to include non-prescription analgesics. Vitamins and other dietary supplements should not be covered under Plan B because patients should be receiving a balanced diet through their regular meals.

Reimbursement of Pharmacists

The Committee endorses the capitation approach associated with Plan B (long term care residents) as an effective method of reimbursing pharmacists for their role in drug use monitoring and control. Pharmacare should explore ways in which the benefits of the capitation approach can be extended to cover long term care patients who are at home.

The Committee endorses the Product Incentive Program and the Rural Pharmacy Program as ways of improving the return to pharmacists.

Computerized Linkage of Pharmacies

The Committee recommends development of a computerized network to link all pharmacies in the province. The network will provide access to information that will help in monitoring effective use of drug therapies.

PHARMACARE PROGRAM REVIEW

Mandate

- > The mandate of Pharmacare can be expressed as follows:
"To promote better health care, by ensuring access to effective drug therapy that is not impeded by personal financial circumstances"
- > To help it achieve its mandate, the Pharmacare Program works in cooperation with the professional bodies representing physicians and pharmacists.

Structure of the Program

- > Out-patient drug purchase has never been an insured benefit of the Canadian Medicare System. Each province has developed its own program of assistance.
- > The British Columbia Pharmacare Program is divided into four major plans, each providing coverage to a particular client group (see Exhibit One). A fifth and substantially smaller plan, Plan F for handicapped children at home, was introduced in 1990.

EXHIBIT ONE

STRUCTURE OF THE PROGRAM - THE FOUR MAJOR PLANS - 1989

Plan	Clientele	Cost of Benefits Provided (\$m)	Number of Claimants ('000)	Average Cost per Claimant (\$)
A	Seniors	114	338	331
B	Long Term Care Residents	7	26	640
C	Social Assistance Clients	36	123	289
E	Universal	30	70*	424

* family units

Overall Assessment of the Program

- > To a large extent, the Program is successfully meeting its mandate.
- > Despite the cost pressures of recent years British Columbia continues to provide as good or better coverage than other provinces. For example, British Columbia is one of the few provinces to have a universal plan (Plan E).
- > Looking forward, Pharmacare will have to find new ways of controlling costs without compromising the purpose of the Program. This report provides some options for the government to consider. At the same time Pharmacare benefits should be improved for the working poor, a group that is not well covered by the Program today.

Cost Pressures

- > Over the past ten years, spending on various plans has increased at rates much faster than inflation (CPI) and the rate of increase of provincial economy (GDP) - - (see Exhibit Two).
- > Cost increases have been dominated by the growth in ingredient (drug) costs per claimant - - (see Exhibit Three). Drug prices themselves have increased at a moderate rate (approximately 5% per year). Costs have been driven by the changing pattern of prescribing toward newer (and typically more expensive) drugs. Exhibit Four shows an example of the trend. The drug Ranitidine has been prescribed increasingly in place of Cimetidine; however, the cost per daily dose is approximately three times as great. (Further examples are contained in the Appendices.)
- > Costs have also been increasing because of the growing proportion of the population over 65 years of age (see Exhibit Five) and by increasing care levels of people in long term care institutions. Drug costs tend to increase with age. However, the very old, those over 80, do not have the highest Pharmacare costs (see Exhibit Six).
- > Pharmacare has responded to these cost pressures in two ways:
 - by requiring beneficiaries to contribute more of the cost (e.g., by increasing the Plan E deductible and by introducing the seniors' copayment);
 - by limiting the range of drugs covered by the Program.

EXHIBIT TWO
GROWTH IN PLAN EXPENDITURES

	<u>Average Annual Rate of Growth</u>	
	<u>1981-85</u>	<u>1985-89</u>
Plan A	18%	9%
Plan B	14%	10%
Plan C	22%	12%
Plan E	n/a	13%
C.P.I.	6%	4%
G.D.P.	5%	8%

EXHIBIT THREE
GROWTH IN INGREDIENT COSTS PER CLAIMANT

	<u>Average Annual Rate of Growth 1985-1989</u>
Plan A	15%
Plan B	14%
Plan C	16%

EXHIBIT FOUR
CHANGE IN PRESCRIBING PATTERNS - AN EXAMPLE FROM PLAN A

Miscellaneous Gastrointestinal Drugs

<u>Drug</u>	<u>% of Scripts 1985</u>	<u>% of Scripts 1989</u>
Cimetidine Tab 300 mg	47%	18%
Ranitidine Tab 150 mg	28%	43%

EXHIBIT FIVE
THE GROWING PROPORTION OF ELDERLY PERSONS

	<u>Percentage of Population Over 65</u>
1980	11%
1990 estimate	13%
2000 estimate	14%

EXHIBIT SIX
PHARMACARE COST BY AGE - COST PER CLAIMANT - 1989

	<u>Plan A</u>
65-70	\$279
70-75	\$338
75-80	\$343
> 80	\$306

- > Competition between pharmacists has kept increases in professional fees below the rate of inflation. This trend has helped moderate Pharmacare costs. It is not reasonable or desirable, however, to expect this trend to continue.
- > Unless the underlying cost pressures on the Program are contained, the government could be forced to reconsider the level of coverage provided.

Conclusion

Pharmacare will have to continue to seek ways to contain cost pressures without prejudicing the underlying mandate of the Program.

Prescribing Patterns

- > Physicians are responsible for drug prescribing and they receive too much of their information on drugs from drug companies. Pharmacare does little to influence which drugs are prescribed even though changes in drug prescribing practices are a major cost driver of the Program.
- > Physicians do not generally have readily available, unbiased information on the effectiveness and cost of alternative drug therapies. If such information could be provided in a convenient form from a recognized authority, it could be used by physicians in deciding which drugs to prescribe. This approach has been used to contain drug costs in hospitals.
- > Even if cost information were provided for a small range of high use, high cost drugs, it could be an effective means of influencing physicians' decisions. Four categories of drugs account for half of the cost of drugs prescribed in Plan A (See Exhibit Seven).

EXHIBIT SEVEN

TOP FOUR CATEGORIES OF DRUG USE BY COST – PLAN A

Cardiac	20%
Anti-Hypertensive	10%
Non-Steroidal Anti-Inflammatory	10%
Misc. Gastrointestinal	9%

- > Manitoba has developed a prescribing guide for persons in long term care institutions.

Recommendation

Pharmacare should work with the College of Physicians and Surgeons, the College of Pharmacists and the BCMA to develop prescribing guides for physicians in a convenient format in order to provide unbiased information on the effectiveness and cost of alternative drug therapies. The Pharmacare Advisory Committee (the Committee) would be willing to spearhead this initiative.

Drug Use Review

- > Pharmacare finances a program of Drug Use Review (DUR) to identify situations of overuse, underuse or combined use of drugs that may lead to adverse outcomes. This program designs and implements education programs to help correct identified problems.
- > The work is conducted by a team of professionals at St. Paul's Hospital under the guidance of a Drug Use Review Committee composed of representatives of professional colleges, the BCMA, the B.C. Pharmacists Association, the Registered Nurses' Association of B.C., the University of British Columbia and a representative from Pharmacare.
- > Each year DUR selects approximately three types of drugs to review (selected from high frequency drugs with the potential for misuse). Examples of drugs that have been reviewed are:
 - sedative/hypnotic agents
 - non-steroidal anti-inflammatory drugs
 - analgesics
 - laxatives used in long term care facilities
- > The Committee is concerned that results of the work of the DUR group are not widely distributed to the medical and pharmaceutical professions. The Committee suggests that the Pharmacare Advisory Committee could be active in giving guidance to the DUR team on the topics to be reviewed.
- > In addition to DUR, Pharmacare provides access to its extensive database for legitimate research purposes. However, when information is released, Pharmacare scrambles the data to ensure that the patients, physicians and pharmacists cannot be identified.

Recommendations

The Committee recommends continuation of the DUR program. The Committee will take an active role in suggesting topics for review and ensuring the results of reviews are circulated widely to the medical and pharmaceutical professions.

The Committee recognizes the educational value of the Pharmacare database. Pharmacare should continue to provide reasonable access to this data for genuine research projects.

Formularies

- > Substitution of generic for brand name drugs is one means of controlling drug costs. Other provinces use formularies to encourage or enforce generic substitution. In British Columbia, the Pharmacare Program relies on pharmacists to substitute generic drugs whenever possible and desirable.
- > Inter-provincial comparisons suggest that B.C. is more effective than most other provinces in achieving generic substitution and, thereby, lower costs.
- > Recent experience in B.C. shows a clear pattern on generic substitution when such substitutes become available. Exhibit Eight, for example, shows how generics have been substituted for the brand name drug in two frequently prescribed drugs.
- > Nevertheless, more can be done to encourage substitution as can be seen by comparing Plans A, B and C. Under Plan B, pharmacists generally have more control over generic substitution and have been more successful in achieving savings for the Program. (See Exhibit Nine.)

EXHIBIT EIGHT EXAMPLES OF GENERIC SUBSTITUTION

Drug	% of Scripts 1985	% of Scripts 1989
Nifedipine		
- Brand Name	100%	66%
- Generic		34%
Ranitidine		
- Brand Name	100%	44%
- Generic		56%

EXHIBIT NINE**COMPARISON OF GENERIC SUBSTITUTION - RANITIDINE (1989)**

<u>Brand Name</u>	<u>% of Scripts</u> <u>Plan A</u>	<u>% of Scripts</u> <u>Plan B</u>	<u>% of Scripts</u> <u>Plan C</u>
Zantac	44	17	40
APO Ranitidine	52	77	54
NOVO Ranitidine	<u>4</u>	<u>6</u>	<u>6</u>
	100%	100%	100%

- > Pharmacare has introduced the Product Incentive Program to encourage pharmacists to make more cost-effective purchasing and product selection decisions by allowing them to share in the savings achieved.

Recommendation

The Committee supports Pharmacare's decision to use the Product Incentive Program to encourage further cost-effective product selection. The Committee does not recommend introduction of a provincial formulary. However, prescribing guides for a few high volume/high cost drugs could indicate generic equivalents.

Control of Drugs Subject to Misuse

- > Pharmacare continues to experience high use of a number of 'problem' drugs - some of which are subject to misuse. Fiorinal with codeine is the fifth most frequently prescribed brand name drug under Plan C. Methadone is the second most frequently prescribed drug under the same Plan.
- > The Triplicate Prescription Program was introduced January 1, 1990 in cooperation with the professional colleges to help monitor and control drugs subject to misuse.
- > A comparison of 1990 and 1989 figures for Plan A and C show a decline in prescriptions and in total units prescribed for most of the targeted drugs. As expected, use of Tylenol #2, Tylenol #3 and 292s has increased correspondingly - a pattern seen in similar initiatives in other provinces.

- > The Triplicate Prescription program has not yet produced significant net cost savings for Pharmacare. The program is aimed primarily at improved health care not cost savings.

Recommendation

The Committee recommends continuation of the Triplicate Prescription Program and encourages further efforts to contain the misuse of prescription drugs in the province.

Increasing Awareness of Drug Prices

- > Patients on Plans A, B and C have little incentive to consider the cost of alternative drugs and alternative brands. Yet, more cost-effective drug selection can be encouraged by making patients aware of the cost of drugs being prescribed.
- > The most straightforward method of doing this is to require patients to pay part of their drug costs or to pay the premium associated with brand name drugs.
- > Under Plan A, today, the copayment is linked to the professional fee, not the cost of drugs. Hence, seniors have no incentive to consider the cost of alternative drug therapies.
- > The current Plan A copayment is 75% of the professional fee. The average copayment charge is approximately \$4 per prescription. In total, patients pay \$16 million in copayment charges each year. A copayment of 15% of ingredient cost would raise approximately the same revenue as today's copayment.
- > Alberta, Saskatchewan and Manitoba each have a 20% copayment for seniors based on the total prescription charge: ingredient cost plus professional fee. Ontario and Quebec have no copayment but the recent Pharmaceutical Inquiry of Ontario recommended a fixed prescription charge of up to \$4 per prescription. Nova Scotia has recently introduced a program that requires the patient to pay the difference between the brand name price and the price in their formulary.
- > Not all drugs have generic substitutes and some drugs are very expensive. Hence, to prevent hardship, some limit would have to be placed on the amount paid per prescription as well as the maximum amount paid in a year. (Today, seniors are not expected to pay more than \$125 per year in copayment charges.)

Recommendations

The current Plan A copayment should be replaced with a copayment linked to the ingredient cost of the prescription.

Consideration should be given to a maximum copayment fee that could be charged on any prescription. A ceiling on the total charges a person would pay in a year should also be retained.

Reducing Waste (Trial Prescriptions)

- > A number of patients use very little of the drugs prescribed either because they have an adverse reaction to the drugs or because their health improves. In these situations, expensive drugs are being wasted.
- > Pharmacare is aware of this problem and has conducted a pilot study of a "trial prescriptions" program. Under this program, pharmacists dispensed part of the prescription for a trial period. The patient came back for the remaining portion of drugs if they were still needed.
- > The pilot suggested only marginal savings from the program (the drug savings did not exceed greatly the higher dispensing costs). However, the pilot was not as successful as it might have been because it did not receive strong support from all the physicians and pharmacists involved.
- > A new approach has been proposed by Pharmacare that would overcome some of the weaknesses of the original pilot: the proposed program would be limited to high cost drugs that have a history of intolerance; and, it would be more widely promoted among physicians.

Recommendation

The Committee supports the trial prescription approach as a means of limiting program costs. It endorses Pharmacare's decision to conduct another pilot study with a view to full implementation on a province-wide basis.

Introducing Ability-to-Pay into the Program

- > The Program's mandate suggests that financial assistance be provided in situations where:
 - low income is a barrier to drug purchase; or,
 - high drug costs could deter necessary drug use, even where incomes are not low.

This is not the case today.

- > Other than Plan C, none of the Pharmacare Plans has an "ability-to-pay" feature. For example, under Plan A, all seniors qualify for Pharmacare benefits no matter what their financial circumstances. Similarly people qualify for Plans B, E and F regardless of their means.
- > The Program does not provide special coverage for the 'working poor'. These people qualify for the universal plan (Plan E) but, in doing so, they have to pay for their drugs up front. Only after they have exhausted the deductible, can they apply for a refund. Also, many of these people would not be covered by an extended health care package through their employers.
- > The practice of providing special coverage for seniors is based on the premise that most seniors face high drug costs relative to their incomes. However, this assumption may no longer be appropriate because:
 - Not all seniors are poor. A large number of seniors have very low incomes (especially single women), and approximately 45% receive the Guaranteed Income Supplement. However, recent income tax statistics show that many seniors in British Columbia declare incomes well above the poverty line. See Exhibit Ten. (Note: Seniors in B.C. are entitled to receive a guaranteed minimum annual income of \$9,840, single, and \$16,260, couple).
 - Not all seniors have high drug costs. Pharmacare statistics show that a large proportion of seniors receive Pharmacare benefits of less than \$200 per year. See Exhibit Eleven.
- > The Program could be made more sensitive to ability-to-pay by changing Plan A to a low-income Plan. Seniors with higher incomes would qualify for Plan E not for Plan A. Similarly, low income families who are not on welfare would qualify for Plan A not Plan E.

- > However, introducing ability-to-pay as a criteria into the Program faces three serious obstacles:
 - An administratively simple and equitable way has to be found to determine eligibility for the low income Plan.
 - The government must fund the additional cost associated with improving coverage for the working poor.
 - People may be reluctant to apply for benefits if they have to meet an income test.
- > The Medical Services Plan already contains an income testing feature. Persons wishing to qualify for help in meeting the cost of medical premiums can apply to the government for premium assistance. Qualification is linked to income in the previous year (as reported on the person's income tax return). With some modification, this same type of approach could be used to determine eligibility for Pharmacare benefits.

EXHIBIT TEN

PROPORTION OF SENIORS IN VARIOUS INCOME BRACKETS - 1989

	Singles	Married Couples
Less than \$10,000	26%	3%
10,001 - 20,000	53%	22%
20,001 - 30,000	13%	29%
More than \$30,000	<u>8%</u>	<u>46%</u>
	<u>100%</u>	<u>100%</u>

Note: The higher income categories may be overstated by people who are in their year of retirement.

EXHIBIT ELEVEN

ANNUAL PHARMACARE PAYMENTS IN PLAN A - 1989

Pharmacare Payments	Number (,000)	Total Cost * (\$m)
< \$200	184	12.5
\$200 - \$325	42	10.8
> \$325	<u>113</u>	<u>88.5</u>
	<u>339</u>	<u>111.8</u>

* Does not include rebate of copayment.

Recommendation

Given the mandate of the Program is to assist persons where financial circumstances would impede access to effective drug therapy, the design of the Plans should be modified to ensure a stronger linkage between eligibility and ability-to-pay. In making this change, coverage for the working poor should be improved.

Limiting Products Covered by the Program

- > The products covered by the Program are:

- most prescription drugs
- most restricted access drugs
- selected supplies and equipment

Over-the-counter drugs and vitamins are not covered. The Program is continually receiving requests for additions to coverage (e.g. catheters).

- > Physicians are able to request coverage for some drugs not normally covered. In these situations, Pharmacare may issue Special Authority for the drug to be covered for a specific person for a limited period of time.
- > Because of continuing cost pressures, the Program has been very cautious in expanding coverage beyond prescription drugs and a few essential medical supplies. In addition, the Program has terminated coverage where drugs have been used for non-medical purposes.
- > New prescription drugs are generally covered by the Plan as soon as they are approved by the federal government. Recently, the Pharmacare Advisory Committee has created a sub-committee to advise Pharmacare by reviewing new drugs and developing guidelines on new drug approvals. Also, the Program has asked all manufacturers to supply information on new drugs being marketed in the province.
- > The Committee discussed the possibility of a "negative formulary" to cover some drugs. Such a formulary would limit coverage of some drugs, including new drugs, to specific circumstances.

Recommendations

Coverage of the Program should be restricted primarily to prescription drugs. All new drugs should be carefully reviewed before being included in the list of eligible drugs.

Physicians should be made more aware of the Special Authority provision of the Program.

Special Benefits for Diabetics

- > Diabetic supplies - needles, syringes and blood glucose testing strips - are eligible benefits under the Pharmacare Program.
- > Blood glucose testing strips are covered only for diabetics for whom testing is medically necessary and who have a training certificate from a recognized training centre.
- > The requirement for a training certificate was recommended by a CASC Committee of the BCMA.
- > The Committee expressed a number of concerns about the requirement for a training certificate:
 - a perceived inconsistency in the training required to receive a certificate;
 - a suggestion that some patients are being asked to undertake elaborate and expensive training; and
 - the necessity of training for a person who has had diabetes for some time.
- > The Committee sees few medical or financial risks in dropping the requirement for a training certificate.

Recommendation

The Committee should, in conjunction with the appropriate committee of the BCMA, review in more detail the requirement that a valid training certificate be a condition of eligibility for coverage of blood glucose testing strips.

Special Support for Persons in Residential Care Facilities

- > The Pharmacare Program is directed to the drug needs of out-patients. Persons receiving treatment in public acute and extended health care facilities receive their drugs free of charge. The cost of their drugs is covered by each facility's operating grant from the provincial government.
- > The drug needs of persons in long term care facilities, however, are covered by Plan B of Pharmacare. These persons are not easily classified either as institutional care patients or as out-patients. They fall somewhere between the two.
- > Long term care facilities receive operating grants from the provincial government but these grants are not intended to cover medical costs. Many residential facilities are very small and do not have the necessary expertise to manage a medical budget.
- > Because persons in residential care facilities are generally sicker and more dependent on professional care than persons living at home, Plan B differs from the other Pharmacare plans in a number of important respects:
 - A wider range of drugs and supplies is covered, including some over the counter (OTC) drugs.
 - Drugs are dispensed in smaller quantities (a maximum of 34 days' supply).
 - Pharmacists are required to closely monitor drugs prescribed for long term care patients.
 - Pharmacists are reimbursed on a "per bed" rather than "per prescription" basis.
- > Patients in residential facilities do not have to contribute to the cost of their drugs either through a copayment or a deductible. They do, however, pay a user fee for their board and lodging. For the poorer patients, this user fee is a large proportion of their disposable income.
- > Not all residential facilities receive Plan B coverage. Some are short stay facilities such as detox centres and halfway homes. Others, such as boarding homes for mentally retarded adults, have long term residents but are not covered.

- > Patients on Plan B must pay for some drugs that would be provided free of charge in an extended care facility (e.g. non-prescription analgesics). This difference in treatment is an irritant to patients even though (and perhaps because) the number of frequently prescribed drugs not covered by Pharmacare is very small. However, in some situations, physicians are being asked to prescribe stronger drugs than are required, simply because they are covered by Pharmacare.
- > Over time we will see a trend toward more people remaining in their own homes. The persons who remain in residential care facilities will be those most dependent on the complete range of continuing support services that can only be provided within a dedicated health institution. Gradually, the nature of medical coverage in these facilities is likely to move closer toward an institutional model. In time, therefore, the drug needs of patients in these facilities may be better met by institutional funding rather than Pharmacare.
- > In the near term, Plan B is a very good means of meeting the drug needs of long term care patients. However, Pharmacare will continue to have the problem of deciding whether the range of drugs provided under the Plan should be similar to those provided to out-patients or similar to those provided in extended care institutions.

Recommendations

Pharmacare should retain special coverage for long term care residents through Plan B.

Pharmacare should continue to cover a wider range of drugs and supplies in Plan B than in the other Plans. Coverage should be expanded to include non-prescription analgesics. Vitamins and other dietary supplements should not be covered under Plan B because patients should be receiving a balanced diet through their regular meals.

Reimbursement of Pharmacists

- > For Plans A and C, Pharmacare reimburses pharmacists according to the actual acquisition cost (AAC) of drugs plus a professional fee. The professional fee cannot exceed 115% of the average fee charged by other pharmacists. In this way, market forces influence the professional fee charged to the Program.

- > For Plan B, pharmacists are paid on a capitation basis, e.g., based on the number of patients (beds) served, not on the number of prescriptions dispensed. This method of reimbursement allows pharmacists to monitor and control drug use among long term care patients without economic penalty. The capitation system has been successful in reducing the volume of drugs prescribed to people in long term care institutions.
- > With the trend toward deinstitutionalization of long term care patients to their houses, the benefits of more active drug monitoring of patients could be lost.
- > Extension of the capitation approach to at-home patients presents a number of practical difficulties including selection of pharmacies, complete screening of drug purchase and maximum dosages.
- > Professional fees have not been a major cost driver for the Program in recent years. For example, under Plan C the professional fee per prescription has increased by 1% per year, far below the rate of increase of the Consumer Price Index. At the same time the ingredient cost per prescription has increased by 12% per year on average.
- > The Program has recently introduced two new features designed to improve the economic return to pharmacists:
 - The Product Incentive Program, that provides pharmacists with a share of the cost savings associated with cost effective product selection.
 - The Rural Pharmacy Program, that provides special assistance to pharmacies in the more remote areas of the province.

Recommendations

The Committee endorses the capitation approach associated with Plan B (long term care residents) as an effective method of reimbursing pharmacists for their role in drug use monitoring and control. Pharmacare should explore ways in which the benefits of the capitation approach can be extended to cover long term care patients who are at home.

The Committee endorses the Product Incentive Program and the Rural Pharmacy Program as ways of improving the return to pharmacists.

Computerized Linkage of Pharmacies

- > Pharmacare has developed plans for an electronic network linking all pharmacies in the province (and eventually all physicians and health care institutions). The proposed network would be used for electronic claims submission, eligibility verification, deductibility calculations and patient medication data.
- > The network would offer numerous benefits:
 - Improved health care by reducing the number of situations where inappropriate medication is dispensed to patients (especially elderly patients).
 - More active monitoring of patient medication patterns, physician prescribing patterns and Pharmacare dispensing patterns.
 - Elimination of paper-based processes from claims submission.
 - More timely adjudication of patient eligibility.
 - Closer monitoring of situations where patients are seeking drugs for inappropriate reasons (e.g. narcotics).
 - Easier access for physicians and pharmacists to information on the pharmacology and cost of alternative drug therapies.
- > The proposed network does have some potential problems that will have to be addressed before implementation:
 - The potential legal problems associated with sharing medical information.
 - Concerns about the security and confidentiality of the information available on the network.

Recommendation

The Committee recommends development of a computerized network to link all pharmacies in the province. The network will provide access to information that will help in monitoring effective use of drug therapies.

Other Drug Programs In British Columbia

- > A number of government agencies other than Pharmacare provide drugs on an out-patient basis in British Columbia. The most prominent alternative agencies are those that deal with specific diseases:
 - B.C. Centre for Disease Control
 - Kidney Dialysis
 - T.B. Clinic
 - Cystic Fibrosis
 - Sexually Transmitted Diseases
 - Communicable Diseases.
 - Cancer Control Agency.
 - Transplant Society.
- > Other programs providing drugs include:
 - Services to the handicapped.
 - Forensic Psychiatry.
 - Mental Health.
- > The basis on which drugs are supplied is generally different than Pharmacare:
 - drugs are typically provided free of charge.
 - some drugs and supplies not normally covered by Pharmacare are provided to patients.
- > Hence some minor inequities and inconsistencies exist between Pharmacare and these other programs.
- > The Committee has reviewed these differences and has concluded that, in general, separate delivery of these specialized programs has distinct advantages:
 - It allows more control over the prescribing and dispensing of these drugs.
 - It encourages patients to participate in the programs.
 - The programs require specialized drugs that would not be routinely available in commercial pharmacies.
 - Some of the programs' clientele have very low incomes.

Note: The Committee had not at the time of this report received a response from the Mental Health Branch and, therefore, could not evaluate the relationship between the drugs it provides and the Pharmacare Program.

- > Most of the agencies contacted saw no major problems of overlap or confusion between themselves and Pharmacare and saw no compelling reason for transferring responsibility to Pharmacare.

Conclusion

The present division of responsibilities between Pharmacare and other government agencies in the provision of drugs is appropriate and should not be an issue of concern for the Advisory Committee.

APPENDIX 1
PHARMACARE HISTORY

PHARMACARE HISTORY

1974:

- Pharmacare established by Ministry of Human Resources.
- Plan A for seniors was created.
- Plan B (Prescription Drug Subsidy Plan) created.
- Plan C for social assistance clients continued from previous "Welfare Program".
- Actual acquisition cost and a dispensing fee as agreed with the British Columbia Pharmacists' Society was established.

1977:

- Program was expanded to provide service to residents of long term care facilities and private hospitals (now Plan B).
- Prescription Drug Subsidy Plan cancelled and Universal Pharmacare (Plan E) was introduced with a \$100 deductible.
- Prosthetics, orthotics, and ostomy supplies added to Pharmacare.
- Disclosure of drug cost and fee on Plan E prescription receipt. Actual acquisition cost and floating dispensing fee was established (+/-15% of provincial average).

1978:

- Breast prosthesis added as eligible benefit.

1982:

- Plan E deductible increased to \$125.

1984:

- The professional dispensing fee was subjected to a secondary screen. The percentage of deviation from the provincial average, was determined by the proportion of Pharmacare prescriptions.
- Plan E deductible increased to \$175.

1987:

- Plan A senior's copayment introduced which required seniors to pay 75 percent of the dispensing fee on each prescription to an annual maximum per person of \$125.
- The secondary screen on dispensing fee levels was removed.
- Plan E deductible was increased to \$275.

1988:

- Home Oxygen Program transferred to Pharmacare.
- \$2,000 ceiling or safety net introduced to the family's portion of annual expenses on Plan E.
- Plan E deductible increased to \$300.

1989:

- Home Blood Glucose testing materials for children 19 years of age and under, pregnant diabetics, and gestational diabetics, with Certificates of Training from approved Diabetic Training Centres added as eligible benefits.
- New program introduced for Medically Dependent Children to receive 100 percent reimbursement for Pharmacare benefits.
- Triplicate Prescription Program to be introduced late fall.
- Plan E deductible increased to \$325.
- Reviewing the possibility of linking all pharmacy computers to a central data base.

APPENDIX 2

FINANCIAL OVERVIEW

FINANCIAL OVERVIEW

- > Rapidly growing costs (Exhibit 2.1).
- > Pattern of program costs exceeding budgets (Exhibit 2.2).
- > Processing and administration is a small percentage of total cost (Exhibit 2.2).
- > Cost control has focussed on increased patient contribution:
 - Plan A co-payment
 - Increase in Plan E deductible
- > Growth in ingredient costs is the main cost driver
- > Growth in professional fees paid by Pharmacare have been constrained by introduction of the Plan A co-payment and competition between pharmacies (Exhibit 2.3).

Exhibit 2.1

Pharmacare Expenditures by Plan (\$'000)

	1981	1985	1989
Plan A	39,949	78,347	111,842
Plan B	6,848	11,448	16,742
Plan C	10,273	22,781	35,544
Plan E	n/a	18,086	29,576

n/a: not available

Average Annual Rate of Growth in Expenditures

	81-85	81-89	85-89
Plan A	18%	14%	9%
Plan B	14%	12%	10%
Plan C	22%	17%	12%
Plan E	—	—	13%

Compared to Other Indicators

	Average Annual Rate of Growth		
	81-85	81-89	85-89
C.P.I.	6%	5%	4%
G.D.P.	5%	7%	8%
Pop.	1%	1%	2%

Exhibit 2.2

Pharmacare Budget and Actual Expenditures (\$'000)

Program Expenditures

	85/86	86/87	87/88	88/89	89/90
Budget	130,058	163,474	158,090	174,331	191,831
Actual	138,159	166,044	160,742	183,393	212,106
Difference	(8,101)	(2,570)	(2,652)	(9,062)	(20,275)

Processing and Admin. Expenditures

	85/86	86/87	87/88	88/89	89/90
Budget	n/a	2,471	2,049	2,596	2,762
Actual	n/a	n/a	1,758	2,001	2,813
Difference	—	—	291	595	(51)

Notes:

- n/a: not available
- Budget expenditures are restated figures.
- Actual expenditures for 1989-90 are from the Financial Management Report. All other actual expenditures are from the Public Accounts.
- Program expenditures for fiscal years 85/86, 86/87 and 87/88 have been adjusted to account for home oxygen expenditures.

Exhibit 2.3

Growth in Average Costs

Ingredient Costs by Plan

	1985	1989	Avg. Annual Rate of Growth 85-89
Plan A	53,390	105,766	19%
Plan B	6,715	11,383	14%
Plan C	14,229	25,652	16%
	74,334	142,801	18%

Professional Fee by Plan

	1985	1989	Avg. Annual Rate of Growth 85-89
Plan A	24,957	8,266	-24%
Plan B	4,733	5,359	3%
Plan C	8,552	9,892	4%
	38,242	23,517	-11%

APPENDIX 3

PLAN A: DESCRIPTION OF PLAN AND FINANCIAL OVERVIEW

DESCRIPTION OF PLAN A

Established:	1974
Eligibility:	All residents age 65 and over who are registered medical plan beneficiaries.
Benefits:	1. All prescription drugs and restricted access drugs. 2. Selected drugs and supplies. (Note: same coverage as Plans C and E.)
Pharmacare Payment:	Actual Acquisition Cost plus 25% of professional fee (dispensing fee).
Patient Co-payment:	75% of the professional fee (since 1987). Automatic reimbursement of fee paid in excess of \$125.

PROFILE (1989)

Number of claimants	338,352
Number of prescriptions per year	4,208,781
Average cost to plan per prescription	
Ingredients	\$25.13
Professional Fee	1.44
Rebate	<u>0.52</u>
Cost to Plan	\$27.09
Average co-payment paid by claimant	\$4.30
Average co-payment net of rebate	\$3.78
Average cost per year per claimant	\$331
Average co-payment charges per claimant per year	\$53.50

OVERVIEW OF FINANCIAL TRENDS AND USE OF PLAN A

- > Rapid growth in cost -- average annual rate of growth of 10% over the past five years. (Exhibit 3.1)
- > Growth in cost would have been even faster (13% per year on average) without introduction of the co-payment. (Exhibit 3.1)
- > Cost drivers over the past five years (Exhibits 3.2 & 3.3):

Number of Claimants	4%
Cost per Claimant	<u>6%</u>
	10%

- > Rapid increase in ingredient costs (15% per year) have been offset by:
 - co-payment
 - slow growth in professional fee

Exhibit 3.1

Plan A Cost by Component

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Plan A Ingredient	53,390,000	65,535,000	77,837,000	91,809,000	105,766,000	19%
Plan A Prof. Fee	24,957,000	27,167,000	13,570,000	6,275,000	6,076,000	-30%
Rebate of Copayment			522,000	2,244,000	2,190,000	
Total Cost of Plan A to Pharmacare	78,347,000	92,702,000	91,929,000	100,328,000	114,032,000	10%
Patient Copayment			12,120,000	18,600,000	18,100,000	
Rebate of Copayment			(522,000)	(2,244,000)	(2,190,000)	
Net Cost to Patient			11,598,000	16,356,000	15,910,000	
Grand Total	78,347,000	92,702,000	103,527,000	116,684,000	129,942,000	13%
Total Prof. and Copayment Fee Paid to Pharmacist	24,957,000	27,167,000	25,690,000	24,875,000	24,176,000	-1%

Exhibit 3.2

Number of Plan A Claimants

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Plan A Eligible	316,586	329,825	345,700	360,800	375,405	4%
Plan A Claimants	294,772	309,696	316,023	324,585	338,352	4%
Ratio	93%	94%	91%	90%	90%	

Plan A Prescriptions

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Prescriptions	4,179,636	4,527,869	4,255,339	4,155,449	4,208,781	0.17%
Number/Claimant	14.18	14.62	13.47	12.80	12.44	-3.22%

Exhibit 3.3

Plan A Average Cost Per Prescription

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Plan A Ing. Cost/Rx	12.77	14.47	18.29	22.09	25.13	18%
Plan A Fee Cost/Rx	5.97	6.00	3.31	2.05	1.96	-24%
Plan A Tot. Cost/Rx	18.74	20.47	21.60	24.14	27.09	10%
Copayment/Rx			2.85	4.48	4.30	

Plan A Average Cost Per Claimant

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Plan A Ing. Cost/Cl.	181.12	211.61	246.30	282.85	312.59	15%
Plan A Fee Cost/Cl.	84.67	87.72	42.94	19.33	17.96	-32%
Plan A Tot. Cost/Cl.	265.79	299.33	289.24	302.18	330.55	6%
Copayment/Claimant			38.35	57.30	53.49	

APPENDIX 4

PLAN B: DESCRIPTION OF PLAN AND FINANCIAL OVERVIEW

DESCRIPTION OF PLAN B

Established:	1977
Eligibility:	All residents in a licensed personal or intermediate long term care facility or private hospital. (Note: Eligibility is not age related but is dependent on residence in the facility.)
Benefits:	1. All prescription drugs and restricted access drugs. 2. Selected drugs and supplies. (Plan B provides a wider drug coverage than Plans A and C. For example, milk of magnesia is a benefit under Plan B, but not under Plans A and C.)
Quantities:	Not greater than 34 days supply.
Pharmacare Payment:	Actual Acquisition Cost plus a professional fee based on a monthly capitation formula.

PROFILE (1989)

Number of licensed beds	20,300
Number of claimants	26,169
Number of prescriptions per year	1,034,950
Average cost per prescription	
Ingredients	\$11.00
Professional Fee	<u>5.18</u>
Cost to Plan	\$16.18
Average cost per claimant per year	\$640

OVERVIEW OF FINANCIAL TRENDS AND USE OF PLAN B

- > Rapidly growing costs -- average annual rate of growth of 10%.
(Exhibit 4.1)
- > Number of claimants has remained relatively constant over the past five years -- average annual rate of growth of less than 1%.
(Exhibit 4.2)
- > Ingredient cost is the largest cost driver over the past five years
(Exhibit 4.3):

Ingredient cost per claimant	14%
Fee cost per claimant	3%
- > Average ingredient cost per claimant (\$435) 40% higher than Plan A (\$313).
- > Average number of prescriptions per claimant (39) is higher than Plan A (12).

Exhibit 4.1

Plan B Cost By Component

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Plan B Ingredient	6,715,000	7,822,000	9,002,000	10,445,000	11,383,000	14.1%
Plan B Prof. Fee	4,733,000	4,709,000	5,212,000	5,484,000	5,359,000	3.2%
Total Plan B	11,448,000	12,531,000	14,214,000	15,929,000	16,742,000	10.0%

Exhibit 4.2

Number of Plan B Claimants

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Plan B Licensed Beds	20,000	20,000	20,000	20,000	20,300	0.4%
Plan B Claimants	25,870	25,725	25,555	26,576	26,169	0.3%
Ratio	129%	129%	128%	133%	129%	

Plan B Prescriptions

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Prescriptions	986,858	1,008,633	1,007,998	1,039,726	1,034,950	1.2%
Number/Claimant	38.15	39.21	39.44	39.12	39.55	0.9%

Exhibit 4.3

Plan B Average Cost Per Prescription

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Plan B Ing. Cost/Rx	6.80	7.76	8.93	10.05	11.00	12.8%
Plan B Fee Cost/Rx	4.80	4.67	5.17	5.27	5.18	1.9%
Plan B Tot. Cost/Rx	11.60	12.42	14.10	15.32	16.18	8.7%

Plan B Average Cost Per Claimant

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Plan B Ing. Cost/Cl.	260	304	352	393	435	13.8%
Plan B Fee Cost/Cl.	183	183	204	206	205	2.9%
Plan B Tot. Cost/Cl.	443	487	556	599	640	9.7%

APPENDIX 5

PLAN C: DESCRIPTION OF PLAN AND FINANCIAL OVERVIEW

DESCRIPTION OF PLAN C

Established:	Continued from previous Welfare Program in 1974.
Eligibility:	All residents (except persons covered by Plans A and B), refugees and their dependents declared eligible by the Ministry of Social Services and Housing (MSSH). All residents may receive coverage on an emergency basis as declared by MSSH.
Benefits:	1. All prescription drugs and restricted access drugs. 2. Selected drugs and supplies.
Quantities:	Not greater than 100 days supply.
Pharmacare Payment:	Actual Acquisition Cost plus a professional fee.
Patient Payment:	None

PROFILE (1989)

Number of claimants	122,911
Number of prescriptions per year	1,624,761
Average cost per prescription	
Ingredients	\$15.79
Professional Fee	<u>6.09</u>
Cost to Plan	\$21.88
Average cost per claimant per year	\$289

Note: Provision of Plan C is a condition of the federal Canada Assistance Program. The federal government provides cost sharing of \$0.50 for each dollar spent on the plan.

OVERVIEW OF FINANCIAL TRENDS AND USE OF PLAN C

- > Rapidly growing costs. (Exhibit 5.1)
- > Number of claimants directly linked to the welfare roll.
- > Number of claimants relatively constant over the past five years -- average annual rate of growth of less than 1%. (Exhibit 5.2)
- > Prescriptions per claimant have increased over the last five years -- average annual rate of growth of 3%. (Exhibit 5.2)
- > Average Plan cost per claimant growing rapidly. (Exhibit 5.3)

Exhibit 5.1

Plan C Cost By Component

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Plan C Ingredient	14,229,000	17,123,000	20,922,000	23,834,000	25,652,000	15.9%
Plan C Fee	8,552,000	9,296,000	10,047,000	10,208,000	9,892,000	3.7%
Total Plan C	22,781,000	26,419,000	30,969,000	34,042,000	35,544,000	11.8%

Exhibit 5.2

Number of Plan C Claimants

Plan C Claimants	Year				Avg. Annual Rate of Growth 85-89
	1985	1986	1987	1988	
	123,252	129,679	136,590	127,668	122,911
					-0.1%

Plan C Prescriptions

Prescriptions	Year				Avg. Annual Rate of Growth 85-89
	1985	1986	1987	1988	
	1,442,242	1,562,446	1,665,303	1,678,885	1,624,761
Rx/Claimant	11.70	12.05	12.19	13.15	13.22
					3.0%
					3.1%

Exhibit 5.3

Plan C Average Cost Per Prescription

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Plan C Ing. Cost/Rx	9.87	10.96	12.56	14.20	15.79	12%
Plan C Fee Cost/Rx	5.93	5.95	6.03	6.08	6.09	1%
Plan C Tot Cost/Rx	15.80	16.91	18.60	20.28	21.88	8%

Plan C Average Cost Per Claimant

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Plan C Ing. Cost/Cl.	115.45	132.04	153.17	186.69	208.70	16.0%
Plan C Fee Cost/Cl.	69.39	71.68	73.56	79.96	80.48	3.8%
Plan C Tot Cost/Cl.	184.83	203.73	226.73	266.64	289.18	11.8%

APPENDIX 6

PLAN E: DESCRIPTION OF PLAN AND FINANCIAL OVERVIEW

DESCRIPTION OF PLAN E

Established:	1977
Eligibility:	All residents registered with MSP, not covered by Plans A, B, or C, and not covered by another prepaid prescription plan.
Benefits:	1. All prescription drugs and restricted access drugs. 2. Selected drugs and supplies.
Pharmacare Payment:	Actual Acquisition Cost and professional fee beyond the patient contribution.
Patient Contribution: (per family)	The first \$325 of prescription costs plus 20% thereafter, up to a maximum of \$2,000. (N.B.: A family that has reached the \$2,000 limit is using a total of \$8,700 of drugs and non-drug supplies per year.)

PROFILE (1989)

Number of family units	69,811
Number of prescriptions per year	1,755,066
Average cost per prescription	
Cost to Plan	\$16.85
Cost to Family Unit	<u>17.14</u>
Total Cost	\$33.99
Average cost per family unit	
Cost to Plan	\$423.66
Cost to Family Unit	<u>430.91</u>
Total Cost	\$854.57

Note: Unlike MSP benefits, Pharmacare benefits are not portable outside the province.

OVERVIEW OF FINANCIAL TRENDS AND USE OF PLAN E

- > Pattern of Pharmacare payment equal to family payment for drugs, on average. (Exhibit 6.1)
- > Cost increasing rapidly. (Exhibit 6.1)
- > Relatively constant number of family units over the past five years -- average annual rate of growth of 2%. (Exhibit 6.2)
- > Deductible has increased from \$200 in 1985 to \$325 in 1989.

Exhibit 6.1

Plan E Cost By Component

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Paid by Family*	18,847,000	20,715,000	24,047,000	26,327,120	30,082,572	12.4%
Paid by Pharmacare	18,086,000	21,506,000	23,143,000	25,323,678	29,575,989	13.1%
Total	36,933,000	42,221,000	47,190,000	51,650,798	59,658,561	12.7%
Percent Paid by Pharmacare	49.0%	50.9%	49.0%	49.0%	49.6%	

* Deductible plus 20%

Exhibit 6.2

Number of Plan E Family Units

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Plan E Family Units	71,625	76,697	66,405	66,654	69,811	-0.6%

Plan E Prescriptions

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Prescriptions	1,650,130	1,754,958	1,722,405	1,672,459	1,755,066	1.6%
Rx/Family Unit	23.04	22.88	25.94	25.09	25.14	2.2%

Change in Plan E Deductible

	1985	1986	1987	1988	1989
Plan E Deductible	200	200	275	300	325

Exhibit 6.3

Plan E Average Cost Per Prescription

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Cost for Family/Rx	11.42	11.80	13.96	15.74	17.14	10.7%
Cost for Pharmac./Rx	10.96	12.25	13.44	15.14	16.85	11.4%
Total Cost/Rx	22.38	24.06	27.40	30.88	33.99	11.0%

Plan E Average Cost Per Family Unit

	1985	1986	1987	1988	1989	Avg. Annual Rate of Growth 85-89
Cost for Family/Unit	263.13	270.09	362.13	394.98	430.91	13.1%
Cost for Pharm./Unit	252.51	280.40	348.51	379.93	423.66	13.8%
Total Cost/Unit	515.64	550.49	710.64	774.91	854.57	13.5%

APPENDIX 7

PLAN F: DESCRIPTION OF PLAN

DESCRIPTION OF PLAN F

Established:	1990
Eligibility:	All children who receive premium-free Medical Services Plan coverage through the At Home Program.
Benefits:	1. All prescription drugs and some restricted access drugs. 2. Selected drugs and supplies.
Quantities:	Not greater than 100 days supply.
Pharmacare Payment:	Actual Acquisition Cost plus professional fee.
Patient Contribution:	No direct payment is required.

APPENDIX 8

ANALYSIS OF GROWTH IN INGREDIENT COSTS

ANALYSIS OF GROWTH IN INGREDIENT COSTS

- > Over the period 1985 to 1989 ingredient costs for Plans A, B and C have risen by approximately 19%, 14% and 16% per year respectively. However, drug price increases have increased by only 4-5% per year and the number of prescriptions for each of the Plans has increased by less than 4% per year. We understand why drug price increases are so low and why ingredient costs have risen so much.

Generic Substitution has moderated drug price increases

- > Pharmacare's index of drug prices is calculated at the 'chemical' level. For example, 150 mg tablets of Ranitidine are under three labels:
 - Zantac
 - Apo Ranitidine
 - Novoranitidine

Zantac is the 'brand name' drug and the other two are generic equivalents made by other manufacturers. Pharmacare's price index tracks the price of Ranitidine not the price of individual brands. Hence if, over time, the generic brands capture a larger part of the market, this keeps down the effective price of Ranitidine.

- > Exhibit 1 shows how this generic substitution has worked for Ranitidine, Nifedipine and ASA ECT in Plan B. Exhibit 2 illustrates the generic substitution for Ranitidine and Nifedipine in Plan A.

More Expensive Drugs are being Prescribed

- > If generic substitution explains the relatively low increase in effective drug prices, changes in the composition of prescribed drugs, from lower to higher cost drugs, must explain the remainder of the cost increase. This trend can be illustrated by looking at changes in the composition of drugs prescribed under Plans A and B.

Plan A

- > Exhibit 3 presents the composition of prescribed drugs by therapeutic category for Plan A. It shows a marked increase in the proportion of costs that are attributable to cardiovascular and gastrointestinal drugs, with corresponding reduction in central nervous system and electrolytic, caloric, and water balance drugs.
- > Further examination of these patterns in Plan A show a significant increase in the share of Plan A cost caused by cardiac drugs, antilipemic agents and miscellaneous gastrointestinal drugs but a reduction in non-steroidal anti-inflammatory drugs (Exhibit 4).
- > Exhibit 5 takes the analysis one step further and shows that the growth in cardiac drugs, antilipemic agents and miscellaneous gastrointestinal drugs can be linked to a switch from cheaper to more expensive (and presumably more effective) drugs.
- > Exhibit 6 illustrates how important this change in composition has been for Plan A costs. It lists the top 10 drugs (by total ingredient cost) in 1989 and shows how much they have grown in cost since 1985. In 1989 these drugs (defined at the chemical level) accounted for 10% of the scripts and 24% of the cost. In 1985 they only accounted for 5% of the scripts and 13% of the costs.

Plan B

- > The trend of prescribing more expensive drugs is also evident in Plan B. Exhibit 7 presents the composition of prescribed drugs by therapeutic category for Plan B. The pattern is similar to that of Plan A above.
- > Exhibit 8 shows that a significant increase in the share of Plan B cost is caused by cardiac, and miscellaneous gastrointestinal drugs but a reduction in non-steroidal anti-inflammatory drugs.
- > The next level of analysis shows that the growth in cardiac and miscellaneous gastrointestinal drugs can be linked to a switch from cheaper to more expensive (and presumably more effective) drugs (Exhibit 9).

- > The last level of analysis illustrates the top 10 drugs (by total ingredient cost) in 1989 and shows how much they have grown in cost since 1985 (Exhibit 10). In 1989 these drugs (defined at the chemical level) accounted for 5% of the scripts and 19% of the cost. In 1985 they only accounted for 2% of the scripts and 11% of the costs.

What explains the change in prescribing patterns?

- > The figures shown above describe a change in prescribing practice, they do not explain it.
- > One explanation may be the change in patient mix: fewer personal care and more intermediate care patients. Another is the natural movement toward newer more effective drugs and away from older less effective alternatives. Newer drugs tend to be more expensive where there aren't generic substitutes but do we expect them to be consistently more expensive than other chemicals?

Exhibit 1

Examples of the Impact of Generic Brand Substitution in Plan B (Level 4)

Nifedipine Tab 10 mg 24-04-00-11-2

	Brand Name	Total Scripts	% of Total Scripts	% of Chem. Cost	PUP	% Chng. PUP (85-89)
1985	Adalat Cap	3,361	100%	100%	0.3631	
1989	Adalat Cap	1,788	47%	53%	0.4561	25.61%
	Novonifedin cap	1,284	34%	30%	0.3434	
	Apo Nifed. Cap	685	18%	16%	0.3437	
	Adalat Pa Tab	57	2%	1%	0.4120	
		3,814	100%	100%	0.3961 *	9.09%

Ranitidine Tab 150 mg 36-40-00-03-2

	Brand Name	Total Scripts	% of Total Scripts	% of Chem. Cost	PUP	% Chng. PUP (85-89)
1985	Zantac Tab	6,339	100%	100%	0.7959	
1989	Apo Ranitidine Tab	12,665	77%	73%	0.6946	
	Zantac Tab	2,739	17%	22%	0.9894	24.31%
	Novoranidine Tab	954	6%	5%	0.6339	
		16,358	100%	100%	0.7385 *	-7.21%

ASA ECT TAB 650 mg 28-08-04-01-2

	Brand Name	Total Scripts	% of Total Scripts	% of Chem. Cost	PUP	% Chng. PUP (85-89)
1985	Entrophen 10 ECT	16,923	84%	90%	0.0366	
	Novasen ECT	1,597	8%	5%	0.0219	
	Ecotrin ECT	1,522	8%	5%	0.0214	
	ASA ECT (CTS)	149	1%	0%	0.0206	
	ASA ECT (NOP)	43	0%	0%	0.0243	
		20,234	100%	100%	0.0343 *	
1989	Entrophen 10 ECT	11,051	67%	75%	0.0507	38.52%
	Novasen ECT	4,588	28%	16%	0.0257	17.35%
	ASA ECT (NOP)	393	2%	2%	0.0310	27.57%
	Artria ECT	392	2%	5%	0.0957	
	Arthrisin SRT Tab	73	0%	1%	0.0917	
	ASA ECT (SDR)	65	0%	0%	0.0353	
	Ecotrin ECT	2	0%	--	0.0228	6.54%
		16,564	100%	100%	0.0444 *	29.45%

* calculated from the total chemical cost and the total quantity

Exhibit 2

Examples of the Impact of Generic Brand Substitution in Plan A (Level 4) (1989)

Nifedipine Tab 10 mg 24-04-00-11-2

	Brand Name	Total Scripts	% of Total Scripts	% of Chem. Cost	PUP	% Chng. PUP (85-89)
1985	Adalat Cap	40,209	100%	100%	0.3611	
1989	Adalat Cap	18,192	66%	74%	0.4493	24.43%
	Novonifedipin cap	4,368	16%	12%	0.3397	
	Apo Nifed. Cap	4,178	15%	12%	0.3443	
	Adalat Pa Tab	955	3%	2%	0.4434	
		27,693	100%	100%	0.4175 *	15.62%

Ranitidine Tab 150 mg 56-40-00-03-2

	Brand Name	Total Scripts	% of Total Scripts	% of Chem. Cost	PUP	% Chng. PUP (85-89)
1985	Zantac Tab	35,756	100%	100%	0.7868	
1989	Apo Ranitidine Tab	40,736	52%	44%	0.6884	
	Zantac Tab	34,243	44%	52%	0.9469	20.35%
	Novoranidine Tab	3,087	4%	3%	0.6360	
	Ranitidine Tab	59	0%	1%	0.6818	
		78,125	100%	100%	0.8009 *	1.79%

* calculated from the total chemical cost and the total quantity

Exhibit 3

Plan A Drugs Prescribed by Therapeutic Classification (Level 1)
(Percent of Total)

	1985		1989	
	% of Total Scripts	% of Total Cost	% of Total Scripts	% of Total Cost
Anti-Infective Agents 08	6.39	3.16	7.44	3.64
Autonomic 12	4.08	4.53	4.66	4.77
Cardiovascular 24	19.13	28.85	20.34	38.35
Central Nervous System 28	26.78	21.88	25.89	17.13
Electrolytic, Caloric, Water Balance 40	13.04	8.34	8.87	3.01
Eye, Ear, Nose, Throat 52	4.91	3.99	5.21	3.34
Gastrointestinal Drugs 56	4.57	7.41	5.77	10.39
Hormones & Synthetic Substitutes 68	7.43	5.10	9.10	6.02
Skin & Mucous Membrane Agents 84	4.70	3.09	4.48	2.36
Smooth Muscle Relaxants 86	1.45	1.69	1.23	1.26
Unclassified Therapeutic Agents 92	2.48	3.57	2.33	3.01
Non-Drug Items 98	1.49	5.43	1.75	4.09
Other	3.55	2.96	2.93	2.63
	100.00	100.00	100.00	100.00

Exhibit 4

Plan A Drugs Prescribed by Major Therapeutic Sub-Classification (Level 2)
(Percent of Total)

		1985		1989	
		% of Total Scripts	% of Total Cost	% of Total Scripts	% of Total Cost
=====					
Cardiovascular Drugs	24:00				
	Cardiac Drugs	9.06	13.98	10.21	20.43
	Antilipemic Drugs	0.26	0.46	0.95	3.29
	Hypotensive	5.13	9.53	5.28	10.08
	Vasodilating	4.68	4.86	3.90	4.53
	Sclerosing Agents	0.00	0.00	0.01	0.00
		=====	=====	=====	=====
		19.13	28.83	20.34	38.33
=====					
Gastrointestinal Drugs	56:00				
	Antacids & Adsorbents	0.42	0.51	0.40	0.44
	Antiemetics	0.89	0.60	0.99	0.75
	Miscellaneous GI	3.08	6.01	4.29	9.01
	Other	0.18	0.29	0.09	0.19
		=====	=====	=====	=====
		4.57	7.41	5.77	10.39
=====					
Central Nervous System	28:00				
	Non Steroidal Anti-Infla.	7.81	13.24	7.60	10.28
	Opiate Agonists	5.15	2.32	5.34	1.95
	Hydantoins	0.36	0.13	0.33	0.12
	Antidepressants	1.77	1.62	2.03	1.67
	Tranquilizers	0.64	0.31	0.53	0.21
	Benzodiazepines	8.98	3.02	8.58	2.11
	Other	2.07	1.24	1.48	0.79
		=====	=====	=====	=====
		26.78	21.88	25.89	17.13
=====					
Electrolytic, Caloric, Water Balance	40:00				
	Replacement Solutions	3.84	3.88	1.65	0.75
	Diuretics	4.46	0.88	3.78	0.52
	Potassium Sparing Diuret.	4.26	2.88	3.23	1.5
	Other	0.48	0.7	0.21	0.24
		=====	=====	=====	=====
		13.04	8.34	8.87	3.01

Exhibit 5

Examples of Changes in Drug Prescribing Patterns In Plan A
Drug Composition by Chemical Type (Level 3)

	1985		
	Total Scripts	Total Ingredient Cost	PUP
Cardiovascular Drugs			
Antilipemic Agents 24:06			
Cholestyramine PWR 444 mg	2,243	87,533	0.0876
Cholestyramine PWR 915 mg	338	12,579	0.0677
Gemfibrozil Cap 300 mg	1,291	53,504	0.3018
Gemfibrozil Tab 600 mg	--	--	--
Lovastatin tab 20 mg	--	--	--
Clofibrate Cap 500 mg	3,300	41,305	0.0818
Total Antilipemic Agents	11,040	245,848	0.0969

	1989		
	Total Scripts	Total Ingredient Cost	PUP
Cardiovascular Drugs			
Antilipemic Agents 24:06			
Cholestyramine PWR 444 mg	3,519	301,069	0.2230
Cholestyramine PWR 915 mg	7,020	448,256	0.0808
Gemfibrozil Cap 300 mg	5,833	435,565	0.4141
Gemfibrozil Tab 600 mg	2,114	218,799	0.8280
Lovastatin tab 20 mg	16,564	1,986,882	1.4859
Clofibrate Cap 500 mg	1,402	30,701	0.1138
Total Antilipemic Agents	39,935	3,489,679	0.3259

	1985	
	% of Total AA Scripts	% of Total AA Cost
Cholestyramine PWR 444 mg	20.32	35.60
Cholestyramine PWR 915 mg	3.06	5.12
Gemfibrozil Cap 300 mg	11.69	21.76
Gemfibrozil Tab 600 mg	0.00	0.00
Lovastatin tab 20 mg	0.00	0.00
Clofibrate Cap 500 mg	29.89	16.80
	64.96	79.29

	1989	
	% of Total AA Scripts	% of Total AA Cost
Cholestyramine PWR 444 mg	8.81	8.63
Cholestyramine PWR 915 mg	17.58	12.85
Gemfibrozil Cap 300 mg	14.61	12.48
Gemfibrozil Tab 600 mg	5.29	6.27
Lovastatin tab 20 mg	41.48	56.94
Clofibrate Cap 500 mg	3.51	0.88
	91.28	98.04

	1985		
	Total Scripts	Total Ingredient Cost	PUP
Gastrointestinal Drugs			
Miscellaneous GI 56:40			
Cimetidine Tab 300 mg	60,093	858,992	0.1443
Cimetidine Tab 600 mg	11,550	199,492	0.2443
Sucralfate Tab 1 mg	5,953	177,323	0.3178
Ranitidine Tab 150 mg	35,756	1,724,999	0.7868
Ranitidine Tab 300 mg	--	--	--
Misoprostol Tab 200 mcg	--	--	--
Famotidine Tab 40 mg	--	--	--
Total Miscellaneous GI	128,832	3,209,768	0.2954

	1989		
	Total Scripts	Total Ingredient Cost	PUP
Gastrointestinal Drugs			
Miscellaneous GI 56:40			
Cimetidine Tab 300 mg	32,370	602,251	0.1546
Cimetidine Tab 600 mg	12,251	280,344	0.2555
Sucralfate Tab 1 mg	20,512	1,105,139	0.4437
Ranitidine Tab 150 mg	78,125	5,334,154	0.8009
Ranitidine Tab 300 mg	5,861	505,863	1.5647
Misoprostol Tab 200 mcg	6,882	306,493	0.4410
Famotidine Tab 40 mg	8,595	728,593	1.4614
Total Miscellaneous GI	180,465	9,529,915	0.5584

	1985	
	% of Total GI Scripts	% of Total GI Cost
Cimetidine Tab 300 mg	46.64	26.76
Cimetidine Tab 600 mg	8.97	6.22
Sucralfate Tab 1 mg	4.62	5.52
Ranitidine Tab 150 mg	27.75	53.74
Ranitidine Tab 300 mg	0.00	0.00
Misoprostol Tab 200 mcg	0.00	0.00
Famotidine Tab 40 mg	0.00	0.00
	87.98	92.24

	1989	
	% of Total GI Scripts	% of Total GI Cost
Cimetidine Tab 300 mg	17.94	6.32
Cimetidine Tab 600 mg	6.79	2.94
Sucralfate Tab 1 mg	11.37	11.60
Ranitidine Tab 150 mg	43.29	55.97
Ranitidine Tab 300 mg	3.25	5.31
Misoprostol Tab 200 mcg	3.81	3.22
Famotidine Tab 40 mg	4.76	7.65
	91.21	93.00

Exhibit 6

TOP 10 PLAN A DRUGS (Chemicals) IN 1989 BY INGREDIENT COST - Level 3

Drug Name	1989			1985		
	Total Scripts	Total Ingredient Cost	PUP	Total Scripts	Total Ingredient Cost	PUP
Ranitidine Tab 150 mg	78,125	\$3,334,154	\$0.80	35,756	\$1,724,999	\$0.79
Diltiazem Tab 60 mg	33,647	\$3,616,620	\$0.57	14,522	\$833,978	\$0.43
Captopril Tab 25 mg	48,306	\$2,805,257	\$0.47	14,353	\$521,014	\$0.36
Nifedipine Tab 20 mg	26,481	\$2,092,089	\$0.67	0	\$0	\$0.00
Diltiazem Tab 30 mg	34,975	\$2,054,388	\$0.33	16,261	\$508,574	\$0.24
Nifedipine Tab 10 mg	27,693	\$2,021,496	\$0.42	40,209	\$2,017,043	\$0.36
Diclofenac SR Tab 100 mg	33,016	\$2,021,496	\$1.15	692	\$24,246	\$0.99
Lovastatin Tab 20 mg	16,564	\$1,986,882	\$1.49	0	\$0	\$0.00
Salbutamol AER 1 mg	92,696	\$1,971,595	\$0.55	82,727	\$1,137,709	\$0.24
Enalapril Maleate Tab 5 mg	33,198	\$1,872,881	\$0.70	0	\$0	\$0.00
Total	424,701	25,776,858		204,520	6,767,563	
Total Plan A	4,208,761	\$105,766,512		4,179,754	\$53,389,598	
Top 10 as per cent of total	10%	24%		5%	13%	

Drug Name	Change			Percentage Change		
	Total Scripts	Total Ingredient Cost	PUP	Total Scripts	Total Ingredient Cost	PUP
Ranitidine Tab 150 mg	42,369	\$3,609,155	\$0.01	118%	209%	2%
Diltiazem Tab 60 mg	19,125	\$2,782,643	\$0.14	132%	334%	33%
Captopril Tab 25 mg	33,953	\$2,284,243	\$0.11	237%	438%	30%
Nifedipine Tab 20 mg	26,481	\$2,092,089	\$0.67			
Diltiazem Tab 30 mg	18,714	\$1,545,814	\$0.09	115%	304%	35%
Nifedipine Tab 10 mg	(12,516)	\$4,453	\$0.06	-31%	0%	16%
Diclofenac SR Tab 100 mg	32,324	\$1,997,250	\$0.16	4671%	8238%	17%
Lovastatin Tab 20 mg	16,564	\$1,986,882	\$1.49			
Salbutamol AER 1 mg	9,969	\$833,886	\$0.31	12%	73%	125%
Enalapril Maleate Tab 5 mg	33,198	\$1,872,881	\$0.70			
Total	220,181	\$19,009,295		108%	281%	
Total Plan A	29,007	\$52,376,914		1%	98%	

Exhibit 7

Plan B Drugs Prescribed by Therapeutic Classification (Level 1)
(Percent of Total)

	1985		1989	
	% of Total Scripts	% of Total Cost	% of Total Scripts	% of Total Cost
Anti-Infective Agents 08	3.36	3.10	3.44	3.53
Autonomic 12	3.86	4.49	4.29	4.87
Blood Formation & Coagulation 20	1.91	0.90	1.89	0.74
Cardiovascular 24	12.25	13.53	11.37	16.85
Central Nervous System 28	31.54	30.60	30.39	27.09
Electrolytic, Caloric, Water Balance 40	15.41	8.23	12.70	5.36
Antitussives 48	0.70	0.43	0.79	0.44
Eye, Ear, Nose, Throat 52	2.88	3.21	3.21	3.15
Gastrointestinal 56	13.99	16.48	17.25	18.50
Hormones & Synthetic 68	4.72	3.11	5.05	3.59
Skin & Mucous Membrane 84	3.19	3.59	4.00	3.84
Smooth Muscle Relaxants 86	1.01	1.48	0.86	1.18
Vitamins 88	1.22	0.30	0.81	0.20
Unclassified 92	2.67	6.59	2.63	6.83
Non-Drug Items 96	0.73	2.38	0.80	2.00
Antineoplastic Agents 10	0.08	0.86	0.15	1.30
Other	0.48	0.72	0.37	0.53
	100.00	100.00	100.00	100.00

Exhibit 8

Plan B Drugs Prescribed by Major Therapeutic Sub-Classification (Level 2)
(Percent of Total)

		1985		1989	
		% of Total Scripts	% of Total Cost	% of Total Scripts	% of Total Cost
=====					
Cardiovascular Drugs	24:00				
	Cardiac Drugs	7.64	6.37	6.83	8.93
	Antilipemic Drugs	0.11	0.06	0.08	0.15
	Hypotensive	1.84	3.07	1.95	3.74
	Vasodilating	2.66	4.01	2.51	4.02
		=====	=====	=====	=====
		12.25	13.51	11.37	16.84
Gastrointestinal Drugs	56:00				
	Antacids & Adsorbents	2.38	2.14	2.50	1.75
	Antidiarrhea	0.32	0.48	0.33	0.51
	Antiflatulents	0.05	0.04	0.07	0.04
	Cathartics & Laxatives	8.09	6.77	10.30	5.64
	Digestants	0.10	0.15	0.07	0.17
	Antiemetics	1.00	0.86	1.08	1.15
	Miscellaneous GI	2.04	6.02	2.91	9.22
		=====	=====	=====	=====
		13.98	16.46	17.26	18.48
Central Nervous System	28:00				
	Non Steroidal Anti-Infla.	6.28	10.61	5.35	6.92
	Opiate Agonists	3.71	2.27	3.50	2.08
	Opiate Partial Agonists	0.08	0.12	0.06	0.08
	Analgesics & Antipyretics	0.07	0.06	-	-
	Benzodiazepials	0.02	0.03	0.26	0.30
	Hydantoins	1.26	0.55	1.09	0.52
	Succinimides	0.02	0.04	0.01	0.01
	Misc. Anticonvulsants	0.41	0.85	0.48	0.78
	Antidepressants	3.20	3.63	3.62	4.58
	Tranquilizers *	6.78	8.47	6.74	8.56
	Barbiturates	0.72	0.19	0.34	0.06
	Benzodiazepines	7.14	2.79	7.17	2.37
	Other	1.85	0.99	1.77	0.83
		=====	=====	=====	=====
		31.54	30.60	30.39	27.09

Exhibit 9

Examples of Changes in Drug Prescribing Patterns in Plan 8 Drug Composition by Chemical Type (Level 3)

Gastrointestinal Drugs Miscellaneous GI 56-40	1985		1989		
	Total Scripts	Total Inged. Cost	Total Scripts	Total Inged. Cost	PUP
Cimetidine Tab 300 mg	8,816	62,670	3,234	31,205	0.14
Ranitidine Tab 150 mg	6,339	260,666	16,358	626,827	0.74
Sucralfate Tab 1 mg	997	31,265	4,357	186,702	0.44
Total Miscellaneous GI	20,170	404,426	30,133	1,049,828	

	1985		1989	
	% of Total GI Scripts	% of Total GI Cost	% of Total GI Scripts	% of Total GI Cost
Cimetidine Tab 300 mg	43.71	15.50	10.73	2.97
Ranitidine Tab 150 mg	31.43	64.45	54.29	59.71
Sucralfate Tab 1 mg	4.94	7.73	14.46	17.78
	80.08	87.68	79.48	80.46

Cardiovascular Cardiac Drugs 24-04	1985		1989		
	Total Scripts	Total Inged. Cost	Total Scripts	Total Inged. Cost	PUP
Digoxin Tab 0.125 mg	44,301	64,634	34,048	84,607	0.08
Digoxin Tab 0.25 mg	11,681	14,853	7,648	19,032	0.08
Nifedipine Tab 10 mg	3,361	130,373	3,814	148,114	0.40
Diltiazem Tab 30 mg	1,401	35,066	4,048	143,775	0.32
Diltiazem Tab 60 mg	872	37,308	2,403	152,964	0.57
Nifedipine Tab 20 mg	--	--	2,054	87,555	0.68
Verapamil Tab 80 mg	1,279	37,659	1,604	72,377	0.53
Enalapril Maleate Tab 5 mg	--	--	--	--	0.70
Total Cardiac Drugs	75,434	428,179	70,702	1,017,085	

	1985		1989	
	% of Total Car. Scripts	% of Total Car. Cost	% of Total Car. Scripts	% of Total Car. Cost
Digoxin Tab 0.125 mg	58.73	15.1	48.16	8.32
Digoxin Tab 0.25 mg	15.49	3.47	10.82	1.87
Nifedipine Tab 10 mg	4.46	30.45	5.39	14.56
Diltiazem Tab 30 mg	1.86	8.19	5.73	14.14
Diltiazem Tab 60 mg	1.16	8.71	3.40	15.04
Nifedipine Tab 80 mg	--	--	2.91	8.60
Veropamil Tab 80 mg	1.70	8.80	2.27	7.12
Enalapril Maleate Tab 5 mg	--	--	4.56	7.53
	83.40	74.72	83.24	77.18

Exhibit 10

TOP 10 PLAN B DRUGS (Chemicals) IN 1989 BY INGREDIENT COST - Level 3

Drug Name	1989			1985		
	Total Scripts	Total Ingredient Cost	PUP	Total Scripts	Total Ingredient Cost	PUP
Ranitidine Tab 150 mg	16,358	\$626,827	\$0.74	6,339	\$260,666	\$0.80
Levodopa/Carbidopa Tab 100/25 mg	4,869	\$264,246	\$0.49	2,890	\$103,677	\$0.38
Captopril Tab 25 mg	8,711	\$225,904	\$0.48	1,999	\$46,503	\$0.36
Sucralate Tab 1 mg	4,337	\$186,702	\$0.44	977	\$31,265	\$0.32
Diltiazem Tab 60 mg	2,403	\$152,964	\$0.57	872	\$37,308	\$0.42
Nifedipine Tab 10 mg	3,814	\$148,114	\$0.40	3,361	\$130,373	\$0.36
Diltiazem Tab 30 mg	4,048	\$143,775	\$0.32	1,401	\$35,066	\$0.24
Nitroglycerine Tab 2.6 mg	3,686	\$132,685	\$0.38	665	\$17,992	\$0.30
Lactulose Syr 667 mg	4,270	\$124,079	\$0.03	2,110	\$63,028	\$0.04
Diclofenac SR Tab 100mg	3,194	\$118,923	\$1.16	37	\$987	\$0.97
Total	55,710	2,124,219		20,651	726,865	
Total Plan B	1,034,950	\$11,382,637		987,270	\$6,714,919	
Top 10 as per cent of total	5%	19%		2%	11%	

Drug Name	Change			Percentage Change		
	Total Scripts	Total Ingredient Cost	PUP	Total Scripts	Total Ingredient Cost	PUP
Ranitidine Tab 150 mg	10,019	\$366,161	(\$0.06)	158%	140%	-7%
Levodopa/Carbidopa Tab 100/25 mg	1,979	\$160,569	\$0.10	68%	155%	27%
Captopril Tab 25 mg	6,712	\$179,401	\$0.12	336%	386%	32%
Sucralate Tab 1 mg	3,380	\$155,437	\$0.13	346%	497%	40%
Diltiazem Tab 60 mg	1,531	\$115,656	\$0.15	176%	310%	36%
Nifedipine Tab 10 mg	453	\$17,741	\$0.03	13%	14%	9%
Diltiazem Tab 30 mg	2,647	\$108,709	\$0.08	189%	310%	34%
Nitroglycerine Tab 2.6 mg	3,021	\$114,693	\$0.08	454%	637%	26%
Lactulose Syr 667 mg	2,160	\$61,051	(\$0.00)	102%	97%	-11%
Diclofenac SR Tab 100mg	3,157	\$117,936	\$0.20	8532%	11949%	21%
Total	35,059	\$1,397,354		170%	192%	
Total Plan B	47,680	\$4,667,718		5%	70%	

APPENDIX 9

BENEFITS UNDER PLANS A, C, E AND F

APPENDIX 9

BENEFITS

Benefits Under Plans A, C, E, & F

Drugs:

Commercially manufactured drug products which are benefits of the Pharmacare Program must be manufactured by companies participating in the Health Protection Branch Quality Assurance of Drugs (QUAD) Program.

All exceptions were determined individually based on medical and economic considerations and the availability of the product through other provincially funded agencies.

1. Schedule A, Part 1

All DRUGS* which may be sold only on the prescription of a practitioner

***EXCEPT:**

- chorionic gonadotropin (A.P.L.)
- Micorette
- topical minoxidil (Rogaine)
- tamoxifen (Nolvadex)
- tretinoin, retinoic acid (Vitamin A Acid, StieVAA)
- drugs prescribed for the treatment of active tuberculosis (eg., rifampin, isoniazid, etc.)
- all multiple vitamins, multiple vitamin/mineral preparations (eg., Alertonic, Optilets, etc.)

2. Schedule A, Part 3, Division 2

ALL DRUGS* that must be stored in an area of the pharmacy to which there is "no public access".

***EXCEPT:**

- alcohol medicinals
- antacids
- dextromethorphan syrup (DM Syrup)
- Hyper HEP
- preparations contained in this Division because of codeine content only, eg., 222's, Benylin with codeine, etc., and which may be sold without a prescription
- vitamins or vitamin/mineral combinations with iron (except for folic acid/iron which is a benefit)
- multiple vitamin injections
- cholera vaccine
- vaccines supplied by Public Health (eg., mumps, rubella, measles, etc.)
- haemophilus b polysaccharide vaccine (b-Capsa I)
- influenza virus vaccines eg., Fluviral, Fluzone

3. Schedule A, Part 3, Division 3

SELECTED DRUGS that may not be displayed outside the controlled access area of the pharmacy within 6 m of the dispensary

- scabicides

Single entity:

- fluoride
- magnesium glucoheptonate
- magnesium gluconate
- enteric coated ASA 650 mg and 975 mg

4. Schedule B

SELECTED DRUGS which may be sold by anyone

- single entity niacin

5. Extemporaneously compounded preparations which do not duplicate the formulation of a commercially manufactured drug product except for topical minoxidil, all strengths, which is not a benefit.

Special Authority:

When the Program was downsized some years ago the special authority process was introduced to assist patients with chronic conditions.

On direct request from physicians, Pharmacare may authorize payment for certain prescribed nonbenefit drugs. In these cases a Pharmacare Special Authority card will be provided to patients for presentation with their prescription to the pharmacist. This form authorizes a Claim submission for the accompanying prescription for a quantity not exceeding 100 days supply. A card will not be issued more frequently than every 100 days, will NOT provide retroactive payment for prescriptions already dispensed, and does NOT authorize payment for refills or renewals of the prescription. Physicians must request from Pharmacare a Special Authority card for each repeat or renewal of the prescription. This form must be submitted with the Claim.

Supplies:

1. Syringes and/or needles for insulin-dependent diabetics only. Blood Glucose testing materials are eligible benefits for all individuals for whom Home Blood Glucose testing is deemed medically necessary. Individuals must possess a valid testing certificate from a recognized Teaching Centre to receive reimbursement for the strips.

2. Ostomy appliances and supplies for ostomates only

General:

- adhesive disposable plastic bags and drains
- adhesive tapes -- Micropore type only
- appliance adhesive -- colly-seals, double-sided adhesive pads, foam pads
- skin cements, skin barrier preparations, skin seals, stomahesive
- cement removers, solvents
- convex inserts
- face plates
- karaya products -- powder, washers, sheets, paste
- oral deodorants

Colostomy:

- colostomy appliances and parts thereof, including belts, etc.
- colostomy irrigation sets
- colostomy pads, colostabelts

Ileostomy:

- ileostomy appliances and parts thereof, including belts

Ileal bladder (cutaneous ureterostomy):

- drain valves, night drainage units
- leg bags, extension tubes

3. Designated permanent prosthetic and orthotic appliances

Benefits Under Plan B

In addition to the benefits described for Plans A, C, E, and F, Plan B benefits include selected Schedule B drugs when prescribed by a practitioner such as:

- | | |
|--------------------------|----------------|
| • glyceryl guaiacolate | eg. Robitussin |
| • kaolin-pectin mixtures | eg. Kaopectate |
| • milk of magnesia | |
| • magnolax | |
| • single entity niacin | |
| • plantago | eg. Siblin |
| • psyllium | eg. Metamucil |

Benefits For Home Oxygen

- liquid oxygen
- cylinder oxygen
- rental of concentrators
- transtracheal supplies
- does not include equipment such as tubing, masks, etc.

APPENDIX 10

HISTORY OF PROGRAM BENEFIT CHANGES

APPENDIX 10

HISTORY OF PHARMACARE PROGRAM BENEFIT CHANGES

June 1976

Exclusions

- Patent medicines and household remedies
- over-the-counter analgesics (ASA, acetaminophen)
- nonprescription lozenges (Aspergum)
- Vitamin, Vitamin/Mineral Supplements other than those labelled "Therapeutic Use"
- food supplements, diet replacements, food replacement products, baby food
- medical supplies, bandages, pads, tape, cotton
- hand cream, lotions, oils
- medicated soap, cleansers

The above are products usually recommended for self purchase and were expected to be the financial responsibility of the recipient.

Inclusions

- All other over-the-counter products reasonably expected to be prescribed by a physician (laxatives, antacids, cough syrup, cold tablets, antihistamines, ophthalmic, otic preparations)
- enteric coated acetylsalicylic acid tablets when prescribed in a dosage schedule and in a quantity sufficient for long term use as an anti-inflammatory agent
- Vitamin, Vitamin/Mineral preparations labelled "Therapeutic Use"

April 1, 1977

Exclusions

- All over-the-counter products except those restricted to the "no public access" area of the pharmacy. This effectively eliminated antihistamines, laxatives, antacids, therapeutic vitamin, vitamin/mineral preparations, cough products, cold remedies, enteric coated ASA

Pharmacare's obligation was to provide essential medication to those eligible. Since the inception of the Program in January 1974, the population increased 18 percent, prescriptions for prescription only medication increased 22 percent, but prescriptions for over-the-counter, nonprescription products increased in excess of 140 percent. The elimination of the over-the-counter products and retention of the essential prescribed products was seen to be necessary.

May 1977

Inclusions

- antimalarial treatments
- glaucoma therapy
- scabicides
- ophthalmics (atropine, scopolamine, pilocarpine)
- single entity calcium
- single entity niacin
- single entity fluoride
- enteric coated ASA 10 grain

These products were included for use in the treatment of chronic conditions, and were to be dispensed in 100 day supplies, with a single professional dispensing fee.

June 1977

Inclusions

- needles and syringes for diabetics
- ostomy supplies and equipment

Exclusions (seems to be an enforcement advice)

- exempt narcotic preparations such as 222's
- Vitamin and Vitamin/Mineral preparations with iron
- antacids

January 1978

Inclusions

- mastectomy prosthesis, (one per mastectomy per year) surgical brassieres (two per year) and lymphedema arm sleeves (one per mastectomy per year)

June 1978

Exclusion

- Influenza vaccine

The vaccine was provided at no charge by the Ministry of Health to individuals 65 years of age or older, and chronically ill persons of any age through the local health unit.

August 1978

Inclusions

- single entity dextromethorphan
- dimenhydrinate products

The products in these two groups were restricted to sale from the "no public access" area of the pharmacy by the College of Pharmacists.

Exclusions

- alcoholic medicinals (tonics)
- Tavist (no longer prescription product, moved to OTC)

July 1981

Exclusions

- MMR Vaccine

Vaccines individually and in combination were provided by the local health unit.

March 1983

Exclusions

- I.U.D.

These items were defined as devices and not drugs by the Federal Health Protection Branch.

April 1983

Inclusion

- Progestasert IUD

This device is defined as a drug by the Health Protection Branch and continued to be a benefit.

February 1984

Exclusion

- A.P.L. (Chorionic gonadotropin)

By written application, physicians could receive special authority approval for use in the approved indication, testicular dysfunction, but was not an automatic benefit due to use in weight loss programs.

March 1984

Exclusion

- Alerton

This preparation, high in alcoholic content, was designed for short term use. The high incidence of long term use, and the potential concern for the CNS stimulant resulted in the benefit change.

April 1984

Exclusion

- injectable chemotherapy including:

- Bleomycin sulfate
- Carmustine
- Cisplatin
- Cyclophosphamide
- Cytarabine
- Decarbazine
- Dactinomycin
- Diethylstilboestrol phosphate
- Doxorubicin
- Etoposide
- 5 Fluorouracil
- Mechlorethamine
- Melphalan
- Methotrexate
- Metomycin
- Thiotepa
- Vinblastin Sulphate
- Vincristine Sulphate
- Vindesine sulfate

The Cancer Control Agency of British Columbia (CCABC) provides injectable cancer chemotherapy to all registered patients. The agency was expanding their tracking and monitoring of protocol.

A comparison of payment data identified a number of patients receiving medication from both sources or in combinations that raised concerns with CCABC. They requested that all injectable forms be exclusively distributed from their agency. Only skin cancer patients and those on oral maintenance were to be provided with funding through Pharmacare.

August 1984

Exclusions

- Dibucaine
- Tetracaine hydrochloride
- pramoxine hydrochloride
- Lidocaine hydrochloride

These short term topical anaesthetics were not being used for self treatment, but rather for physician's office procedures.

- confirmation of nonbenefit eye, ears, nose, and throat nonbenefits, due to confusion and inconsistencies with various brand name products.
- Naphazoline hydrochloride
- Naphazoline hydrochloride/Antazoline phosphate
- Naphazoline hydrochloride/Pheniramine maleate
- Oxymetazoline hydrochloride
- phenylephrine hydrochloride
- alcohol/sulphur compound
- aluminium acetate/Benzethonium chloride
- aluminium chloride
- Castellani's Paint
- Haloprogin
- Hexachlorophene
- Monobenzene
- Triethanolamine Salicylate
- Vitamin A

September 1984

Exclusions

- Tamoxifen

The Cancer Control Agency expressed concern for the use of this product and wished to monitor protocols. The product is provided free of charge to all patients registered with the agency, through the agency or its outreach hospitals.

March 1985

Exclusion

- Terfenadine

The product is no longer a "no public access" drug and is no longer an eligible benefit.

May 1985

Inclusions

- Muro 128
- Adsorbonac

Corneal edema therapy was considered serious enough for inclusion.

October 1985

Exclusions

- Benzoyl Peroxide 5 percent or less

These preparations were no longer restricted to the "no public access" area of the pharmacy by the College of Pharmacy.

- Butacaine Sulphate
- Proparacaine

These topical (ophthalmic) anaesthetics were not intended for ongoing self administration, but for short term use in physician office procedures, and were therefore considered ineligible.

November 1985

Exclusion

- Topical minoxidil

Government policy prevents payments for cosmetic treatment such as hair restoration.

February 1986

Inclusions

- magnesium glucoheptonate
- magnesium gluconate

This was due to physician requests for electrolyte management.

Exclusions

- Phazyme 55
- Phazyme 95

As a result of reformulation, these products no longer contain the digestive enzymes that resulted in eligibility.

April 1986

Exclusions

- lactulose syrup

Previously, this product, marketed as Cephulac, for the treatment of portal systemic encephalopathy, was an eligible benefit. However, a review of claims indicated the product was being used for constipation.

Only on prior application, for use in portal systemic encephalopathy, will payment be extended.

September 1986

Exclusion

- Aztemizole (Hismanal)

As this product is no longer restricted to the "no public access" area of the pharmacy, it is no longer an eligible benefit.

- multiple vitamin, multiple vitamin/mineral preparations
- Optilets
- Ferritrinsic
- Trinsicon
- Palafer CF
- Ferro Grad 500
- Fero Folic 500

To be consistent with other vitamin and vitamin mineral preparations, these prescription products, due to the inclusion of intrinsic factor, were removed as eligible benefits.

- dithroanol, less than 0.5 percent

This strength of Anthralin products are not restricted to the "no public access" area of the pharmacy.

- Beta Capsa I (hemophyllus, influenza B)
- Hyper Hep (immune serum globulin)

On advice from the provincial epidemiologist these vaccines were not included as routine benefits. Enquiries for Hyper Hep were to be directed to the local Medical Health Officer who would ensure it is used according to Red Cross protocol.

September 1986

Exclusion Clarification

Medical supplies for ostomates is limited to essential benefits, exclusively used by ostomates. The following were confirmed as nonbenefits:

- Antiseptics
- deodorizers
- disposable gloves
- Duo Derm
- indwelling catheters
- gauze dressings
- germicides
- KY Jelly
- pouch covers
- waterproof hospital tape

April 1988

Exclusion

- Nicorette gum

Due to the long term use of this product as a possible means to stretch tobacco dollars, or a habit subsidized by government in place of a habit not subsidized by government, it was decided that individuals that truly wish to quit smoking would trade the dollars they spend on tobacco to purchase Nicorette.

- single entity calcium

Due to the high incidence of use of high cost, luxury formulations of calcium, where low cost, substitutes were available at reasonable cost, and government payment policy appeared to influence the selection of therapy, it was decided to discontinue the payment for calcium supplements.

- single entity dextromethorphan

This product is no longer restricted to the "no public access" area of the pharmacy.

- tretinoin/retinoic acid (topical Vitamin A)

Due to the 600 percent increase in the prescribing of topical Vitamin A, as a result of media attention for the antiwrinkle, antiaging properties, topical Vitamin A was eliminated as a routine benefit.

On application by the prescribing physician, special authorization is granted where the cream is used for acne or skin cancer.

- altered restriction on replacement of breast prosthesis and surgical brassieres

One breast prosthesis per mastectomy every 24 months, or at a time interval consistent with the manufacturers warrantee, and two brassieres immediately post surgical, but no further replacements.

Promotion by suppliers, and requests for replacement by some patients were based on previous annual eligibility rather than need.

November 1988

Exclusions

- Benzonatate

No longer scheduled as "no public access" by the College of Pharmacists and therefore is no longer a benefit.

- Ipecac Syrup
- Ipecac tincture
- propylhexedrine

These items were rescheduled by the College Pharmacy as "no public access" drugs, but the Program chose to retain nonbenefit status.

December 1988

Inclusion

- Blood glucose testing strips

These agents were included as eligible benefits for diabetics under 19 years of age, gestational diabetics and pregnant diabetics in receipt of a Certificate of Training from an approved Diabetic Teaching Centre.

March 1989

Exclusion

- Talwin compound 50

College of Physicians and Surgeons advised its members that prescribing Talwin Compound 50 may be considered unprofessional conduct due to the high incidence of illicit drug trafficking.

June 1, 1990

Exclusion

- Claritin

The product is no longer a prescription only item and is available for over-the-counter sale.

Clarification of nonbenefit ostomy supplies, identified during detailed claim review.

- sterile and nonsterile gauze
- support belts
- ostomy wrap
- Duoderm wafers
- Pouch covers
- Uniwash
- Banish
- ostomy cleaning pads
- Panafil ointment
- Mucous Dispersant
- Uricleen
- Elastoplast tape
- Secur Strips
- Hibidil liquid
- Hospital strapping tape
- Comfeel Ulcers
- Sween Cream
- Catheters
- Uniderm
- Catheter trays
- Stoma Home Cutters
- Pouch deodorants
- Elastoplast
- Malaria medication (Prophylaxis)

Clarification that prophylaxis therapy for travellers is not eligible but medication used in active treatment of the disease continues to be eligible.

Inclusion

- Blood glucose monitoring strips

The eligibility was expanded to include all diabetics for whom testing is medically necessary, and have a Training Certificate from a recognized Training Centre.